

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-22. (Canceled)

23. (Previously presented) A method for manufacturing a belt structure of a vehicle tire, comprising the steps of:

preparing, in a substantially-continuous manner, a belt assembly incorporating reinforcing cords substantially parallel to one another and inclined at a first predetermined angle with respect to a longitudinal axis of the belt assembly;

cutting, in a substantially-continuous manner, the belt assembly along a first cutting direction substantially parallel to the longitudinal axis to obtain first and second substantially-continuous belt strips extending along two conveying directions substantially parallel to one another;

supplying, in a substantially-continuous manner, the first and second belt strips to at least one assembly drum; and

superposing on the at least one assembly drum portions of the first and second belt strips, each having predetermined length, to obtain a belt structure comprising radially-superposed portions of the first and second belt strips, wherein in each portion of the first belt strip the reinforcing cords are substantially parallel to one another, wherein in each portion of the second belt strip the reinforcing cords are substantially parallel to one another, and wherein in the radially-superposed portions of the first and

second belt strips the reinforcing cords in the first belt strip are inclined in an opposite direction with respect to the reinforcing cords in the second belt strip.

24. (Previously presented) The method of claim 23, wherein the step of preparing the belt assembly comprises the steps of:

forming, in a substantially-continuous manner, a sheet of rubber-coated fabric incorporating a plurality of reinforcing cords substantially parallel to one another;

transporting the sheet along a predetermined conveying direction;

cutting the sheet along a second cutting direction forming a second predetermined angle with respect to a conveying direction of the sheet to obtain a plurality of strips of predetermined prevailing length;

rotating each strip by an angle equal to the first predetermined angle; and

splicing the rotated strips at an edge of the predetermined prevailing length thereof.

25. (Previously presented) The method of claim 23, wherein the step of superposing on the at least one assembly drum portions of the first and second belt strips comprises the steps of:

a) cutting the first belt strip to form a portion having a length substantially equal to a circumferential development of a first assembly drum;

b) applying the portion of the first belt strip on the first assembly drum, wherein the first assembly drum and a second assembly drum are coaxially aligned along a substantially-horizontal rotation axis, and wherein the first and second assembly drums

are fixed on diametrically opposite sides of a device for supporting and angularly positioning the first and second assembly drums;

c) rotating the device 180° about an axis perpendicular to the substantially-horizontal rotation axis, thereby switching positions of the first and second assembly drums;

d) cutting the second belt strip to form a portion having a length substantially equal to the length of the portion of the first belt strip;

e) applying the portion of the second belt strip on the portion of the first belt strip to obtain the belt structure;

f) switching designations of the first assembly drum and the second assembly drum;

g) repeating steps a) through f) to obtain additional belt structures.

26. (Previously presented) The method of claim 23, further comprising the step of discarding one of the portions of the first and second belt strips.

27. (Previously presented) The method of claim 23, wherein the portions of the first and second belt strips are obtained on respective means for conveying the first and second belt strips and the portions of the first and second belt strips along the two conveying directions.

28. (Previously presented) The method of claim 27, wherein the belt strips are supplied to the at least one assembly drum by the means for conveying the first and second belt strips and the portions of the first and second belt strips.

29-35. (Canceled)

36. (Previously presented) A method for manufacturing a belt package of a vehicle tire, comprising the steps of:

a) preparing a belt structure on a first assembly drum by:

preparing, in a substantially-continuous manner, a belt assembly incorporating reinforcing cords substantially parallel to one another and inclined at a first predetermined angle with respect to a longitudinal axis of the belt assembly;

cutting, in a substantially-continuous manner, the belt assembly along a first cutting direction substantially parallel to the longitudinal axis to obtain first and second substantially-continuous belt strips extending along two conveying directions substantially parallel to one another;

supplying, in a substantially-continuous manner, the first and second belt strips to a first assembly drum; and

superposing on the first assembly drum portions of the first and second belt strips, each having predetermined length, to obtain a belt structure comprising radially-superposed portions of the first and second belt strips, wherein in each portion of the first belt strip the reinforcing cords are substantially parallel to one another, wherein in each portion of the second belt strip the reinforcing cords are substantially parallel to

one another, and wherein in the radially-superposed portions of the first and second belt strips the reinforcing cords in the first belt strip are inclined in an opposite direction with respect to the reinforcing cords in the second belt strip;

b) transferring the belt structure onto a second assembly drum; and

c) coaxially forming on the belt structure a layer of circumferentially-oriented reinforcing cords, the layer having a maximum length and a maximum width substantially equal to those of the belt structure.

37. (Previously presented) The method of claim 36, wherein the layer of reinforcing cords is formed by applying on the belt structure a ribbon of rubber mixture having a predetermined width, wherein the ribbon is coextruded in a substantially-continuous manner together with a plurality of cords prealigned along a direction parallel to an extrusion direction of the ribbon.

38. (Previously presented) The method of claim 36, wherein the layer is formed by spirally winding on the belt structure at least one tape of rubber-coated fabric incorporating one or more reinforcing cords.

39-40. (Canceled)

41. (Previously presented) A method for manufacturing a crown structure of a vehicle tire, comprising the steps of:

a) preparing a belt package on a second assembly drum by:

preparing, in a substantially-continuous manner, a belt assembly incorporating reinforcing cords substantially parallel to one another and inclined at a first predetermined angle with respect to a longitudinal axis of the belt assembly;

cutting, in a substantially-continuous manner, the belt assembly along a first cutting direction substantially parallel to the longitudinal axis to obtain first and second substantially-continuous belt strips extending along two conveying directions substantially parallel to one another;

supplying, in a substantially-continuous manner, the first and second belt strips to a first assembly drum; and

superposing on the first assembly drum portions of the first and second belt strips, each having predetermined length, to obtain a belt structure comprising radially-superposed portions of the first and second belt strips, wherein in each portion of the first belt strip the reinforcing cords are substantially parallel to one another, wherein in each portion of the second belt strip the reinforcing cords are substantially parallel to one another, and wherein in the radially-superposed portions of the first and second belt strips the reinforcing cords in the first belt strip are inclined in an opposite direction with respect to the reinforcing cords in the second belt strip;

transferring the belt structure onto a second assembly drum;

coaxially forming on the belt structure a layer of circumferentially-oriented reinforcing cords, the layer having a maximum length and a maximum width substantially equal to those of the belt structure;

- b) providing, in a substantially-continuous manner, a plurality of treads by cutting a substantially continuous tread sheet of rubber mixture in portions of predetermined length; and
- c) coaxially applying one of the treads on the belt package.

42. (Previously presented) The method of claim 41, wherein the treads are formed by extrusion in a substantially-continuous manner.

43-44. (Canceled)

45. (New) A method for manufacturing a green tire comprising the steps of:
preparing a carcass structure;
torically shaping the carcass structure;
preparing a belt structure;
arranging the belt structure as a crown around the carcass structure torically shaped; and
wrapping a tread around the belt structure;
wherein the step of preparing the belt structure comprises the steps of:
preparing, in a substantially-continuous manner, a belt assembly
incorporating reinforcing cords substantially parallel to one another and inclined at a first predetermined angle with respect to a longitudinal axis of the belt assembly;

cutting, in a substantially-continuous manner, the belt assembly along a first cutting direction substantially parallel to the longitudinal axis to obtain first and second substantially-continuous belt strips extending along two conveying directions substantially parallel to one another;

supplying, in a substantially-continuous manner, the first and second belt strips to at least one assembly drum; and

superposing on the at least one assembly drum portions of the first and second belt strips, each having predetermined length, to obtain a belt structure comprising radially-superposed portions of the first and second belt strips, wherein in each portion of the first belt strip the reinforcing cords are substantially parallel to one another, wherein in each portion of the second belt strip the reinforcing cords are substantially parallel to one another, and wherein in the radially-superposed portions of the first and second belt strips the reinforcing cords in the first belt strip are inclined in an opposite direction with respect to the reinforcing cords in the second belt strip.

46. (New) The method of claim 45, wherein the step of preparing the belt assembly comprises the steps of:

forming, in a substantially-continuous manner, a sheet of rubber-coated fabric incorporating a plurality of reinforcing cords substantially parallel to one another;

transporting the sheet along a predetermined conveying direction;

cutting the sheet along a second cutting direction forming a second predetermined angle with respect to a conveying direction of the sheet to obtain a plurality of strips of predetermined prevailing length;

rotating each strip by an angle equal to the first predetermined angle; and

splicing the rotated strips at an edge of the predetermined prevailing length thereof.

47. (New) The method of claim 45, wherein the step of superposing on the at least one assembly drum portions of the first and second belt strips comprises the steps of:

a) cutting the first belt strip to form a portion having a length substantially equal to a circumferential development of a first assembly drum;

b) applying the portion of the first belt strip on the first assembly drum, wherein the first assembly drum and a second assembly drum are coaxially aligned along a substantially-horizontal rotation axis, and wherein the first and second assembly drums are fixed on diametrically opposite sides of a device for supporting and angularly positioning the first and second assembly drums;

c) rotating the device 180° about an axis perpendicular to the substantially-horizontal rotation axis, thereby switching positions of the first and second assembly drums;

d) cutting the second belt strip to form a portion having a length substantially equal to the length of the portion of the first belt strip;

- e) applying the portion of the second belt strip on the portion of the first belt strip to obtain the belt structure;
- f) switching designations of the first assembly drum and the second assembly drum;
- g) repeating steps a) through f) to obtain additional belt structures.

48. (New) The method of claim 45, further comprising the step of discarding one of the portions of the first and second belt strips.

49. (New) The method of claim 45, wherein the portions of the first and second belt strips are obtained on respective means for conveying the first and second belt strips and the portions of the first and second belt strips along the two conveying directions.

50. (New) The method of claim 49, wherein the belt strips are supplied to the at least one assembly drum by the means for conveying the first and second belt strips and the portions of the first and second belt strips.